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Examining the Settlement Patterns of Historical and Islamic Sites in the Western Margins of the Lut Desert

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Abstract

The western margins of the Lut Desert have long been a crucial hub for cultural exchange, owing to its distinctive geographical location. Dating back to the third millennium BC, Shahdad stands out as a key site in the archaeological studies of southeastern Iran. In 2011, a focused purposive survey was conducted to unveil the settlement patterns of historical and Islamic sites in the west of the Lut. The study successfully recorded 94 archaeological sites, including sites, architectural structures, cemeteries, troglodytic spaces, and rock art spanning from the 5th millennium BC to the late Islamic centuries. The primary aim of this research is to unravel how environmental and human factors shaped the distribution of these sites over time. The primary focus of the study is to analyze the spatial and temporal distribution of ancient sites in the Lut area, as well as the underlying factors shaping this particular pattern. Survey findings revealed that 70 sites were associated with historical and Islamic periods, contrasting with the predominantly prehistoric origins of the others. Furthermore, the research delved into the spatial distribution of historical and Islamic settlements across the cultural landscape of the Lut Desert. It emerged that the Shahdad alluvial fan, stretching along the desert's western edge from north to northeast, served as a dynamic crossroad facilitating exchange from the historical period to the late Islamic centuries, profoundly impacting the evolution and distribution of settlements in the area.

Keywords: Western Margin of Lut Desert, Historical Period, Islamic Period, Archaeological Sites.

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Introduction

There are significant settlements dating back from prehistory to the late Islamic centuries in the western margins of the Lut Desert. A systematic examination of the distribution and layout of historical and Islamic sites in this area is notably absent, prompting the initiation of this study. By conducting a thorough survey, the researchers aimed to address this gap by mapping out the temporal and spatial distribution of sites. In 2011, a comprehensive archaeological survey was carried out by the authors in the area, revealing a total of 94 archaeological sites, with 70 of them dated to historical and Islamic periods1 . This survey, authorized by the Cultural Heritage, Handicrafts, and Tourism Organization of Kerman Province, sought to uncover settlement patterns in the area, enriching the archaeological landscape of the area and completing the archaeological map of the country. Through this exploration, the researchers aimed to unveil the evolving settlement patterns over time and investigate the dynamic interplay between human communities and the natural environment across different historical periods. The urgency of this investigation stems from the glaring absence of any prior research on the distribution and settlement patterns of historical and Islamic sites in the western periphery of the Lut Desert.

Research Question and Hypothesis: The primary inquiry in the present study is as follows: how was the spatial and temporal distribution of historical and Islamic sites in the western margins of Lut Desert? and what factors influenced it? It is hypothesized that the prosperity of the area in the historical and Islamic periods continued on the alluvial fan of Shahdad, similar to prehistoric settlements, but to a different extent and quality. A systematic and comprehensive survey was undertaken to identify all archaeological sites in the region for the field component of the study. The functional analysis of the settlements was conducted utilizing various tools such as geographical maps, Google Earth images, and local information. The diversity of landscapes in the studied area required different approaches and methods depending on the location. A descriptive-analytical approach was taken, along with a comprehensive survey, to clarify the cultural landscape of the western margins of the desert. Different types of maps and GIS analyses were effectively used to achieve this goal. The project encompassed various stages including identification, documentation, utilization of GPS devices for geographical positioning, and the creation of topographic maps, plans, and sketches. Each site was meticulously detailed in terms of typology, stratigraphy, conservation evaluation, and

environmental status, with a specific emphasis on pottery sampling for relative dating purposes. Field data was collected, and site conditions were taken into account, encompassing surface findings, topography, and inter-site relationships to accurately delineate their spatial distribution. Archaeological sites located in Shahdad were denoted with the prefix (Shd), while those in Golbaf were marked with Gbf. The survey conducted in the western region encountered challenges such as landmines and security concerns. Additionally, the proximity to the Lut Desert presented obstacles, with drifting sand covering portions of the sites, necessitating thorough surveys for identification.

Research Background

Under the direction of Ahmad Mostoufi in the winter of 1967, the Geography Department at the University of Tehran discovered an ancient cemetery in the desert, located two kilometers east of Shahdad town. Following this, Ali Hakemi from the General Directorate of Archaeology and Public Culture conducted a series of archaeological excavations from 1969 to 1977 in Shahdad, an archaeological site dating back to the third millennium BC (Hakemi, 1997, 2006). After a decade and a half of suspension, in the first decade of the 21st century, explorations in the Shahdad plain continued for another four seasons under the supervision of Kaboli (Kaboli 1997, 2001, 2002). The excavations by Hakemi were concentrated in the cemetery of Shahdad, in the south of the area, leading to the identification of 383 graves. Exploration in the northern sector and residential area of the site was carried out by Kaboli, leading to the identification of residential architectural complexes. Within the framework of Hakemi's project, an Italian team conducted a brief archaeological survey in Shahdad, aiding in the identification of various sections and completing the city map (Salvatori & Vidale 1982). In the twelve seasons of excavation in this region, no archaeological survey had been conducted in the western margin of the Lut Desert until Nasir Eskandari's team performed a sampling survey in 2011 as part of the country's archaeological mapping project. This resulted in the documentation of 94 archaeological sites, with potsherds being the predominant findings. These findings played a significant role in advancing our understanding of the settlement phases and relative chronology.

The first relevant publication is an article by Hakemi (1973) entitled 'Excavations of the Lut (Discovery of Prehistoric Civilization in Khabis of Shahdad),' detailing the four seasons of excavation carried out at Shahdad between 1969 and 1973. Kaboli (1997) in a book titled 'Report

of the 10th season of excavation at ancient Shahdad,' details the 1997 excavation. Subsequently, Kaboli published reports on the eleventh and twelfth seasons of Shahdad excavations in two other books (Kaboli 2001, 2002). One notable publication related to the study area is Hakemi's (2006) book titled 'Archaeological Report of Eight Seasons of Survey and Excavation at Shahdad (Lut Plain),' which covers excavations of the Bronze Age remains from 1968 to 1975. Furthermore, in another study by Hakemi (1997), he briefly discussed the results of field works related to the Bronze Age at Shahdad. In recent studies, the research on 'Prehistoric Settlements in the Lut Desert, Southeast Iran' stands out for exploring how natural and cultural aspects intertwined during the Chalcolithic and Bronze Ages (Eskandari et al., 2016). Another noteworthy study by Eskandari & Mollasalehi (2016) titled 'Excavations at the Prehistoric Sites of Tepe Dehno and Tepe East Dehno, Shahdad, Southeastern Iran,' is one of the articles in the monograph dedicated to Mir Abedin Kaboli. Subsequently, Eskandari (2016) reported the survey results in two Chalcolithic and Bronze Age sites in 2011, along with an article titled 'A reappraisal of the chronology of the Chalcolithic Period in the SE of Iran: Absolute and relative chronology of Tepe Dehno and Tepe East Dehno, Shahdad,' suggesting a central role for Shahdad in the extensive network of exchanges in the third millennium BC in southwest Asia. As is evident from the overall research background, the focus of studies has been predominantly on the prehistoric period of the region, while the later periods have not been addressed as expected.

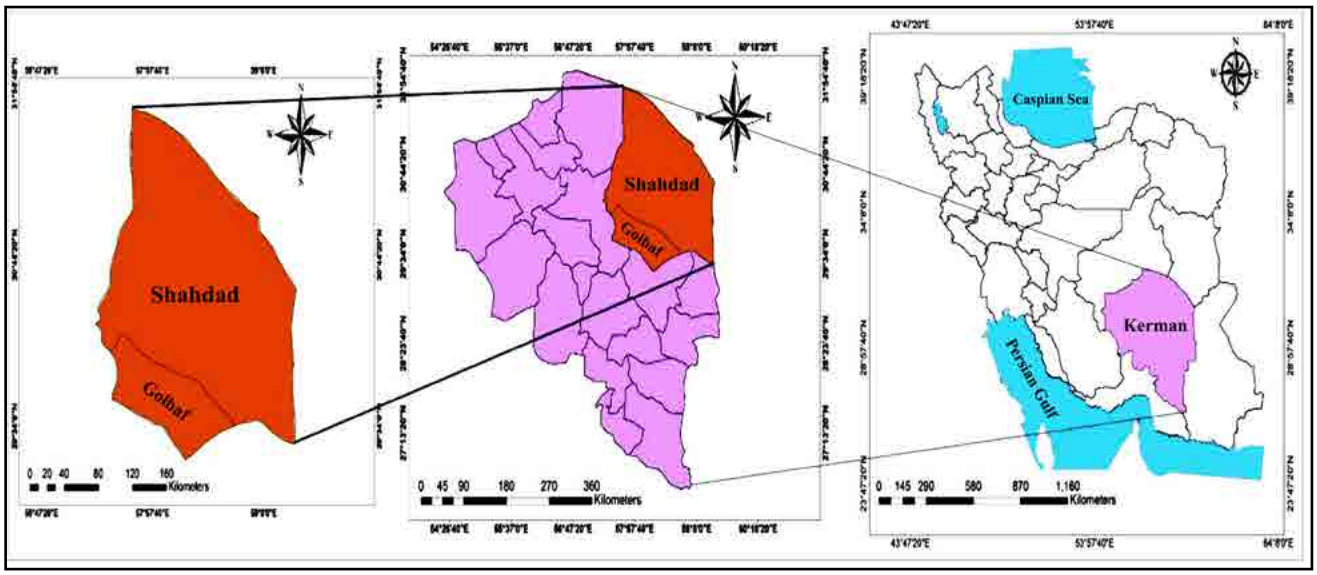
The geography of the area

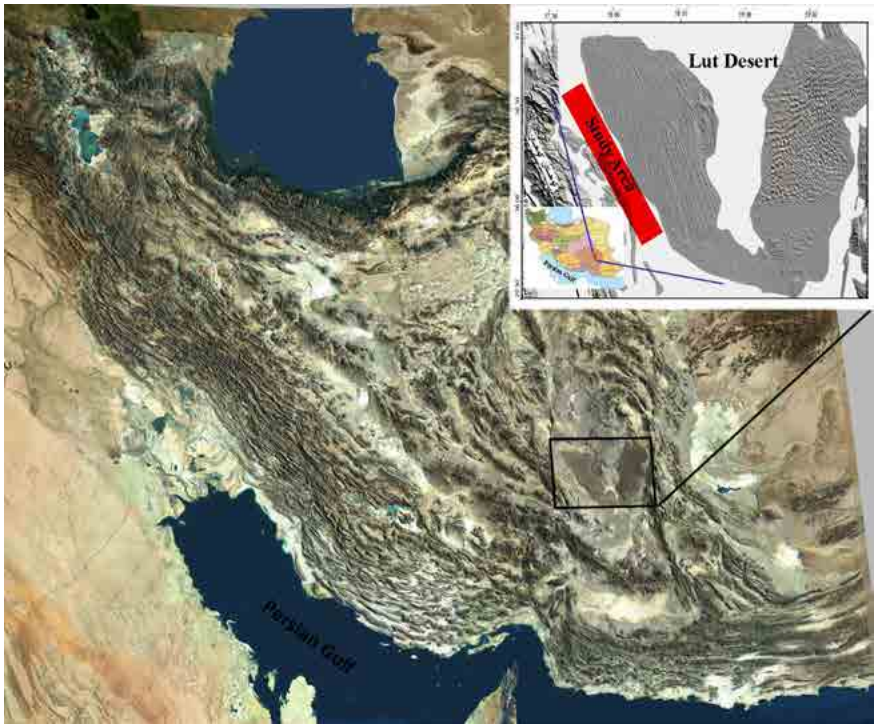
The area under investigation covers the western part of the Lut Desert in Kerman County, consisting of the northern parts of Shahdad and the southern parts of Golbaf (Fig. 1). Up to 50 years ago, these two parts used to form a single unit called Shahdad. The geographical scope includes the area between the eastern foothills of the Kerman mountains and the Lut Desert, covering an area equivalent to 4000 km2 (40 × 100 kilometers) (Fig. 2). The patterns of life, architectural styles, and spatial organization of ancient sites in this area have exhibited a diverse range over time, encompassing a variety of settlement sizes and types, from expansive to modest with some located near villages (caravanserais or forts) or situated in isolated settings (mausoleums or forts). According to Fig. 2, the plain located near the western edge of the Lut and the alluvial fan of Kuhbanan Mountain form the study area. The highlands in the western part, such as Sirch and Jaftan are over 3000 m high, while the altitude of the eastern part is less

than 400 m above the sea level. The western lands of the Lut are mostly devoid of vegetation cover, but in some eastern villages of the Shahdad plain such as Rudkhaneh, Mohammadiyeh, and Rashidabad, there is abundant vegetation cover. The vegetation of the northern part of Shahdad is bare, where rarely Ziziphus trees and Tamarisk bushes are visible. In the Kalut lands in the western edge of Lut, there are scattered bushes of tamarisk. In the valleys with water leading to the Kaluts, individual bushes of Astragalus are seen, which slowly vanish as one reach the desert at the base of the Kaluts. The plant types in the low-lying areas at the edge of Lut are generally halophytic (salt-tolerant plants), Haloxylon, Astragalus, while sagebrush (Artemisia) is seen in the highlands. The emergence and decline of Shahdad and neighboring areas are heavily influenced by environmental factors, trade networks, and the economic standing of the region.

The strategic position of Shahdad made it a key hub for trade between Sistan and Baluchestan, Kerman, and Khorasan (Mostoufi 1972: 57). However, despite its historical significance, the city's prosperity during historical and Islamic times paled in comparison to its prehistoric era. Islamic historians and geographers (see e.g., Qazvini 1994: 243; Maqdisi 1982: 680; Istakhri 1994: 246; Hamavi 2004: 269) have documented the cultivation of silkworms, berry trees, and dates in Shahdad, as well as the presence of defensive walls and settlements with names like Guk, Kathrowa, Keshit, and Nask. Today, the historical ruins of walls and other structures from both pre-Islamic and Islamic periods are still visible.

Fig. 1: The location of Shahdad and Golbaf cities in the northeast of Kerman Province (Authors, 2011). ▼





◄ **Fig. 2: The geographical location of the study area in the western margin of the Lut Desert (red area) (Maghsoudi et al 2012, with modifications by the Authors).**

Results

An archaeological survey carried out in the western region of Lut, specifically in the Shahdad and Golbaf district of Kerman Province, unveiled a total of 94 sites spanning from the fifth millennium BC to the late Islamic centuries. Within these sites, 23 were classified as prehistoric, 12 as historical, and 59 as Islamic sites. It should be noted that some sites exhibited multiple periods; for instance, from the examination of 59 Islamic sites, 70 distinct time periods are recorded. The survey findings shed light on notable settlement fluctuations in the study area from prehistory to the late Islamic centuries. Prehistoric settlements dating back to the fifth to the second millennia BC have been previously explored and introduced in prior studies (Eskandari et al., 2016). Interestingly, Parthian and Sasanian settlements were found to be less prevalent compared to those from the post-Islamic and prehistoric eras. Conversely, the majority of sites discovered were from the Islamic period (early, middle, and especially, late centuries). Subsequent sections of this research will elucidate the evolution of settlements during the historical and Islamic periods.

Historical Periods

- Parthian Period

Among the historical sites in the western margins of Lut, only three sites, including Hematabad-e Paeen I (Takab village), Kazemabad Chaharfarsakh

(Sirch village), and Qal'eh Nask (Golbaf district) contain evidence of Parthian period (Table 1). Given the scattered and limited number of Parthian sites (Fig. 3), it is difficult to make any definite statements about settlement patterns in this period. The formation of settlements in the Parthian period in the Shahdad alluvial fan follows a similar pattern as other subsequent periods. The potsherds discovered from the sites are plain, predominantly in red and lateritious hues. Crafted through wheel-throwing techniques, these medium-sized vessels are well-fired, and filled with sand and fine sand. Some pieces feature incised decoration, with forms including bowls boasting either curved-out or inwardly rounded rims (Fig. 4). They are compared with the ceramics from the Chaharfarsakh in Nehbandan (Labaf Khaniki et al., 2021: 301, Fig. 5), Sarakhs plain (Behruzifar et al., 2021: 150, Fig. 2), Shahr Tapeh in Daregaz (Nami & Mousavinia, 2021: 182, Fig. 14), Sangsheer in Hamadan (Afshari & Naghshineh 2014), Bisotun (Alibeigi 2009; Rahbar 2003; Alizadeh 2002), and Rey (Kleiss 1987). Qal'eh Nask, a historical site from the Parthian period, features a 120x30 meter rectangular plan. Constructed with rubble, limestone, and plaster mortar, it was built in harmony with the natural form and rocky terrain of

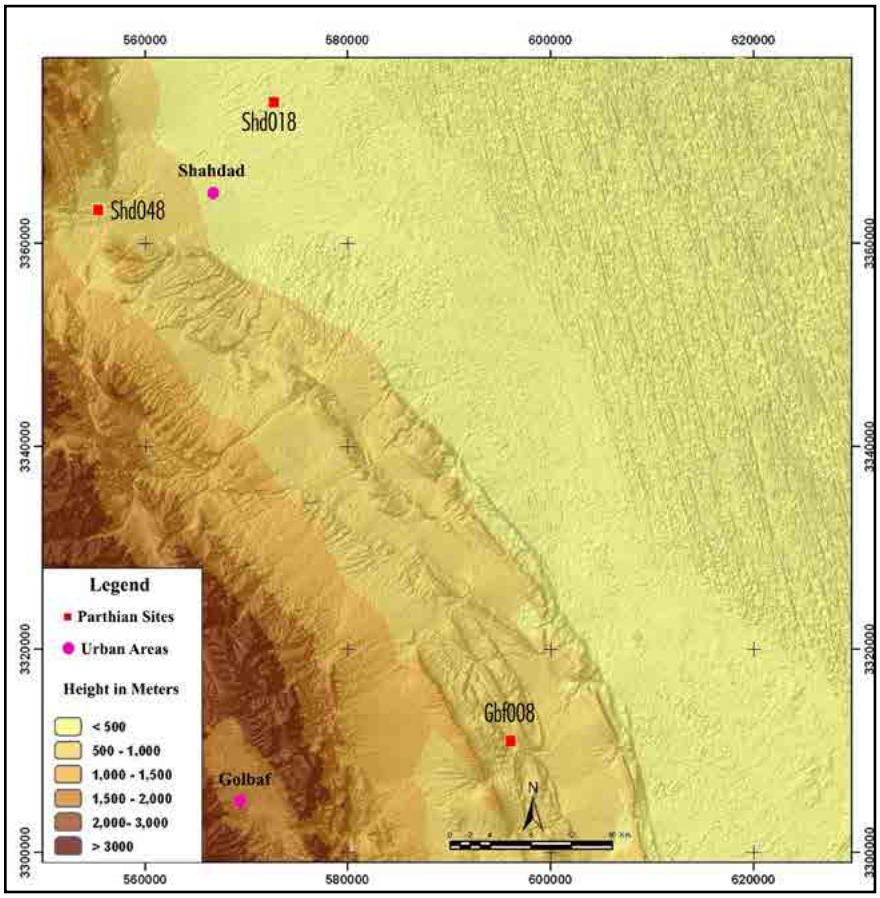
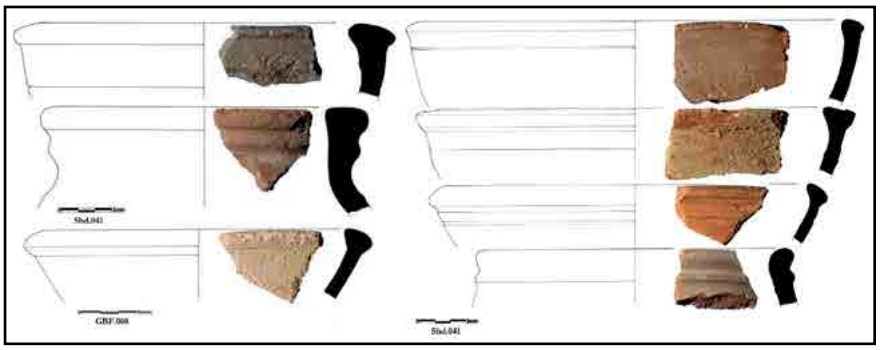


Fig. 3: Distribution of Parthian sites in the western margins of the Lut Desert (Authors 2022). ▶

No	Title	code	Location	E Longitude	N Latitude	Altitude
1	Hematabad-e Paeen I	Shd 018	Shahdad, Takab, Hematabad-e Paeen village	3374160m N	40R0574620m E	350
2	Kazemaba-e Chaharfarsakh	Shd 041	Shahdad, Sirch, Faizabad village	3367508m N	40R0547057m E	1530
3	Qal'eh Nask	Gbf 008	Golbaf, Keshit, Nask village	3301753m N	40R0591356m E	909

▲ Table 1: Location of Parthian sites in the Western Margins of the Lut Desert (Authors, 2011).



◄ Fig. 4: Parthian potsherds from Kazemabad-e Chaharfarsakh (Shd041) and Qal'eh Nask (Gbf008) (Authors, 2011).

the mountain where it is located. This east-west-oriented construction is rare architectural evidence from the Parthian period in the area.

- Sasanian Period

The findings of the sampling surveys in the studied region point to a greater significance of the Sasanian period and a higher number of sites attributed to this period compared to the Parthian period. As mentioned in the 'Karnamak-e Ardeshir Babakan', Ardeshir I campaigned in the area at the beginning of his reign, suggesting a shift in power dynamics with the Arsacid family as local rulers (Lukonin 2005: 51). However, scholarly debates continue regarding the specifics of territorial control, administrative structures, and political landscapes in Kerman, Sistan, and Baluchestan during this period. Through the investigation carried out in the Shahdad district, eleven sites related to the Sasanian period have been documented (Fig. 5). Situated along the trade and military path connecting Kerman and Khorasan (Ibn Khordadbeh 1992: 230), Shahdad experienced a period of economic growth during the Sasanian and early Islamic centuries, contrasting with its position during the Parthian period.

The development of Sasanian sites within the Shahdad alluvial fan is notable (Fig. 5). This region held significant importance during that time, leading to the connection of Sasanian Khabis (Shahdad) with Bam and Narmashir (in the south of Shahdad). Due to its strategic position and role in that period, the majority of structures in Shahdad were forts (Table 2), with the largest being the Qal'eh Kohne, measuring 800 x 350 meters. This fort served as the central hub of the settlement (Kaboli 1989: 82). Over

time, as security improved and settlements expanded beyond the fort's walls, it evolved into the nucleus of the city or village, as highlighted by Zarei & Heidari Babakamal (2014: 203).

Gowdiz Chahartaqi, a notable Sasanian-period find, is located in the Anduhjerd district, 20 kilometers south of Shahdad and one kilometer north of Anduhjerd Village. This square-plan structure measures 460×460 cm, with walls around 60 cm wide and four entrances in the cardinal directions, each 140 cm wide (Fig. 6).

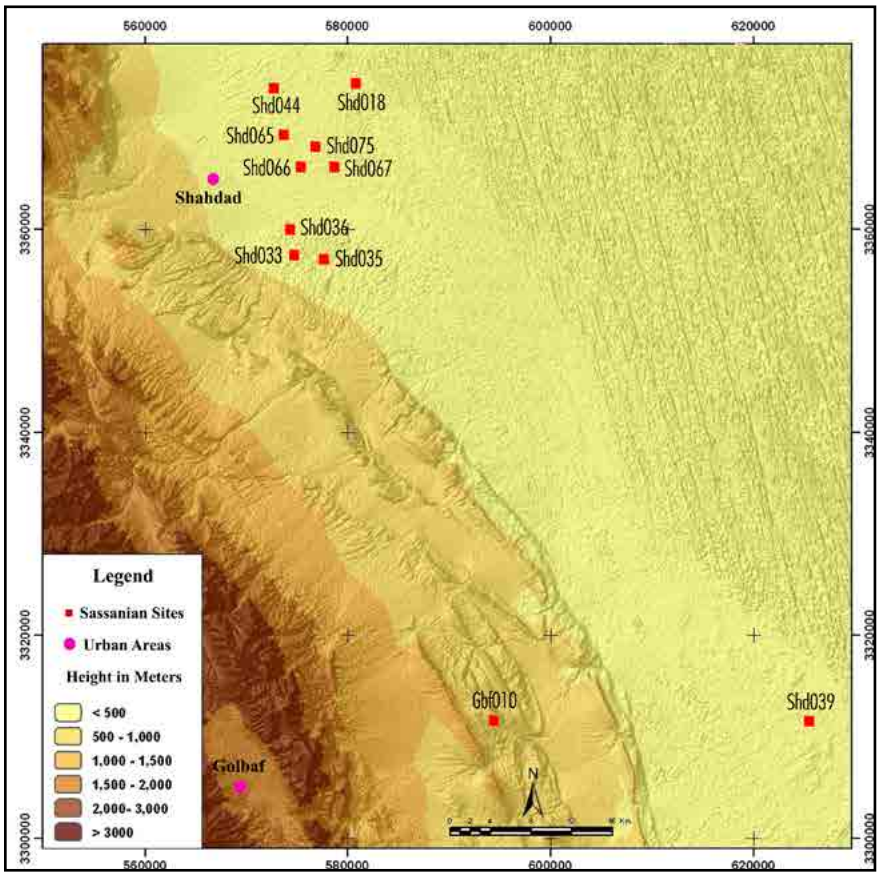
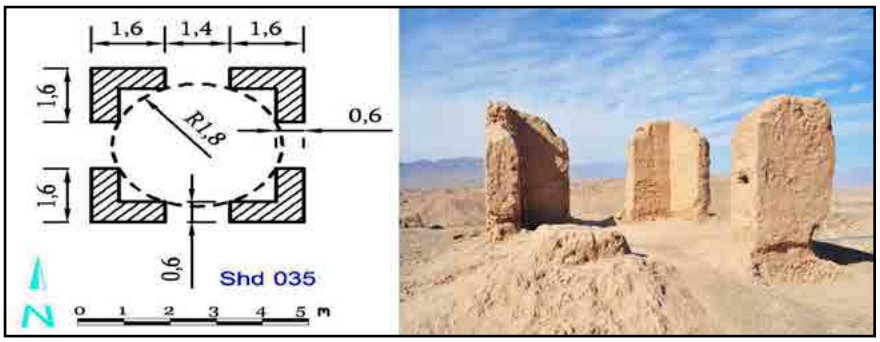


Fig. 5: Distribution of Sasanian sites in the western margins of the Lut Desert (Authors 2022). ▶

The collapsed walls lie in ruins around the structure, and the ceiling has entirely fallen in. The Chahartaqi construction style suggests it once featured a domed roof. The destruction of the Chahartaqi building seems to have been influenced not only by natural causes but also by human actions. The building was made of sun-dried bricks measuring 9×22×22 centimeters and coated with mud mortar. This four-sided structure, in terms of its plan, is comparable to the chahartaqi structures in Posht-e kouh, Luristan, except for the Se pa Chahartaqi in Ivan, which has a surrounding corridor around the central square (Vanden Berghe 1977). Moreover, this building bears a striking resemblance to similar structures in Fars, such as 'Naudaran'

and 'Konar siah' in Firuzabad, 'Malek, Tal-e Jangi, 'Khurma Yak', and Kazerun chahartaq, as well as Aliabad, Darabagh in Kerman (Vanden Berghe 1961), the temple B at Takht-e Soleyman (Navman 1995), and Tureng Tepe (Boucharlat 1979: 54). However, they differ in terms of size and the materials used. Considering the differences, the closest example in the plan to Gowdiz Chahartaqi is the Kazerun example, which even shares similarities in their pier. As observed, the studied examples of Bandian, Tureng Tepe, Takht-e Suleiman, and Navis are comparable to Gowdiz Chahartaqi and are possibly from the second half and the end of the Sasanian period. The potteries of Gowdiz are characterized by items that are either undecorated or adorned with zigzag or wavy geometric patterns. These pieces are wheel-made, of medium size, well-fired, filled with sand, and left unglazed. The vessels typically have inward-facing ribbed bowls as their form of edges. While most edges are left undecorated, some pieces feature zigzag decorations (Fig. 7). In terms of form, decorations, and technical characteristics, the potsherds closely resemble samples from Fars (Alden 1978), Khuzestan (Wenke 1975; Lecomte 1987; Eqbal 1976; Boucharlat & Labrousse 1979), south of the Iranian Plateau (Whitcomb 1987; Adams 1970), Tell Mahuz in northwest Mesopotamia (Venco Ricciardi 1970), and Qal'eh Yazdgird (Keall & Keall 1981).



◄ **Fig. 6: Plan and picture of Gowdiz chahartaqi (Authors, 2011).**

- Islamic Sites

Geographers and historians of the Islamic period (Qazvini, 1994: 244; Maqdisi 1982: 681; Istakhri 1994: 247) believed that the old city of Shahdad was destroyed due to floods, seasonal winds, and conflicts among tribes. From the eighth to the ninth centuries AH, this city faced a decline, but it saw a relative resurgence in prosperity during the Safavid period and beyond. It appears that its strategic location played a more significant role than economic factors in attracting attention to Shahdad and the western margins of the Lut during the Islamic period. Iranian rulers utilized well-established trade networks and secured the infrastructures strategically

Fig. 7: Sasanian pottery (Shd018, Shd036, Shd039 and Gbf010) (Authors, 2011). ▶

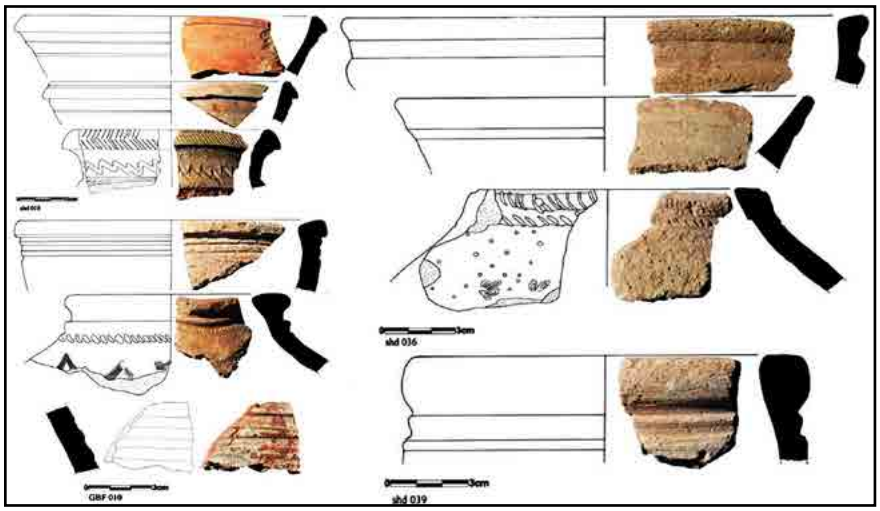


Table 2: The location of Sasanian sites in the western margin of the Lut Desert (Authors, 2011). ▼

No	Title	Code	Location	East Longitude	North Latitude	Altitude
1	Qal'eh Kotkotu	Shd 033	Shahdad, Anduhjerd, Gowdiz Village	3355661m N	40R0566977m E	770
2	Gowdiz Chahartaqi	Shd 035	Shahdad, Anduhjerd, Anduhjerd Village	3355666m N	40R0566977m E	603
3	Qal'eh Dahane Taru	Shd 036	Shahdad, Anduhjerd, Anduhjerd Village	3357064 m N	40R0567878m E	598
4	Jahr Cemetery	Shd 039	Shahdad, Anduhjerd, Jahr Village	3330944m N	40R0594772m E	541
5	Qal'eh Ramouk	Shd 044	Shahdad, Central District	3377993m N	40R0560676m E	480
6	Qal'eh Choqouki	Shd 066	Shahdad, Central District	3364054m N	40R0569074m E	434
7	Qal'eh Kohne	Shd 075	Shahdad, Central District	3366084m N	40R0569038m E	416
8	Dastjerd Qal'eh	Shd 067	Shahdad, Central District	3363824m N	40R0569790m E	420
9	Kushk-e Ramouk	Shd 065	Shahdad, Central District	3369118m N	40R0567120m E	422
10	Hematabad-E Paeen I	Shd 018	Shahdad, Takab, Hematabade Paeen I	3374160m N	40R0574620m E	350
11	Dastkand Qal'eh Hashtadan	Gbf010	Golbaf, Jowshan, Hashtadan Village	3330560m N	40R0561043m E	1703

positioned along the routes, as crucial elements for triumph in their military expeditions to distant territories. Shahdad, with its advantageous location and efficient communication infrastructure, exemplified these vital attributes (Mostoufi 1972: 70; Najmi & Rafieezadeh 2002: 14). Based on this, the diversity and distribution of Islamic period sites in Shahdad are remarkable. Out of 72 Islamic sites, 46 are from the later Islamic centuries, 15 from the middle centuries, and 11 from the early Islamic centuries, with some sites encompassing multiple cultural periods (multi-period sites). Given that the majority of the recognized sites are situated along the edges of drifting sands, a significant number of these settlements have either been buried already or are on track to be buried soon, making their re-identification a formidable task (Fig. 8).

◄ Fig. 8: Examples of Islamic sites in the western margins of the Lut Desert buried under drifting sands (Authors, 2011).

- The Early Islamic Centuries

Subsequent to the collapse of the Sasanians and the Arab invasion of Kerman and Sistan (32 AH), Abdullah Ibin-e Amer traveled to Bam with the intention of subduing Khorasan. His army then proceeded to Khorasan via the Lut Desert. Along the way, Khabis (Shahdad2) was captured by this Arab general (Tabari 1975: 213). Remains of forts (e.g., Kushk-e Ramouk and Qal'eh Choqouki), caravanserais, or houses in abandoned villages from the early or middle centuries of Islam show that the city was destroyed by floods several times during this period, and the people of Shahdad had to leave their houses.

Despite all the mentioned natural hazards, due to the economic and agricultural importance of Shahdad, the attention of many historians and geographers of the Islamic period has been drawn to this area. In Masalik va Mamalik (1994: 246), Istakhri mentioned Khabis as one of the small cities by the desert and described it as having enough water, many trees, and affordable prices. Qazvini (1994: 243) and Moqdisi (1982: 680) have discussed the favorable hue and superior quality of henna originating from Khabis, as well as the plentiful palm groves and exceptional dates found in the district. Maqdisi (1982: 684) has also named the smaller towns of Khabis as Nask, Keshid, and Kouk Kathrowa and added '… Khabis has a fort with four entrances, good dates, and a vibrant society that uses the water of streams and qanats. The towns are next to the desert but prosperous. Known as a hub for dates and silk production, Khabis is also adorned with an abundance of berries.'2

In the early Abbasid era, trade caravans used to pass through the Lut Desert via Khabis and Mahan, near Kerman, heading towards Sirjan, which was a prominent city in southeastern Iran at that time. In the early 3rd century AH, Ibn Khordadbeh (1992: 231) mentioned a trade route from Fahraj to Nosratabad was almost the main corridor between Kerman and Zahedan, passing through the Lut towards the north. This route started from

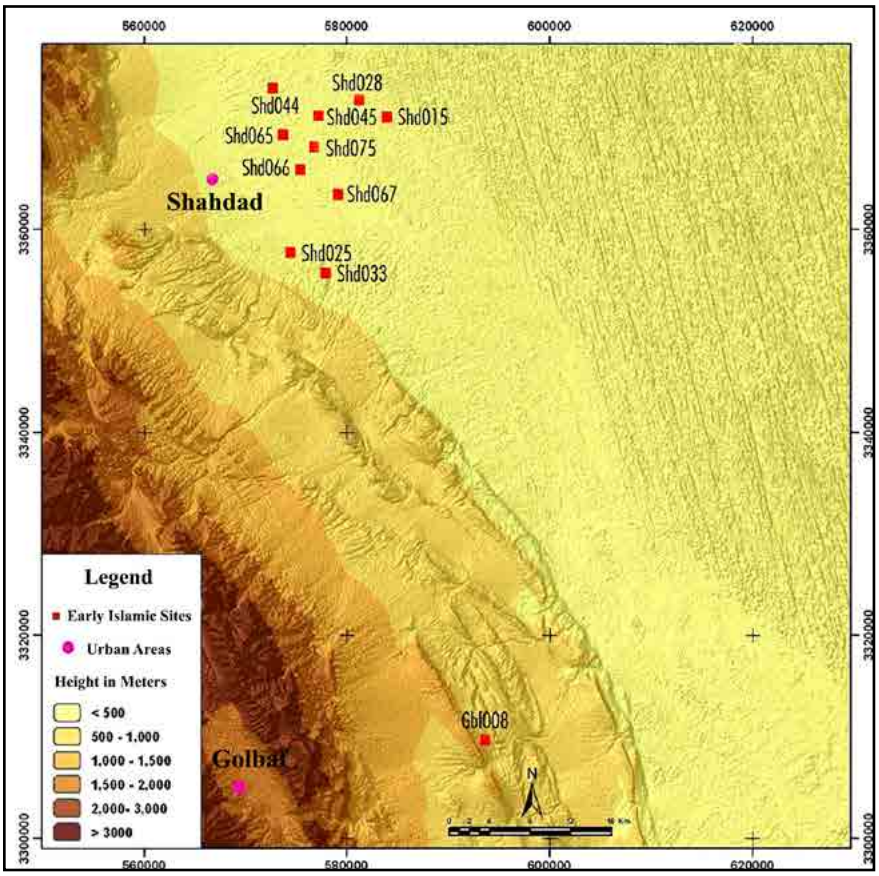


Fig. 9: Distribution of early Islamic sites in the western margins of the Lut (Authors 2022). ▶

Narmashir to Darestan, and finally reached Ras Al-Ma (same as Baluchab or Ab Shirinak). Mostoufi (1972: 367) also provided information about another road that extended from the above-mentioned route from Pay-e Kalut towards Keshit.

Eleven early Islamic sites display evidence of pottery, as depicted in Fig. 9 and Table 3. These sites were commonly found in conjunction with Sasanian settlements, suggesting a continuation of culture during the early Islamic era in the area. The early Islamic potteries from the 3rd and 4th centuries AH were wheel-made with a buff-colored fabric and sand temper. They were decorated with geometric and floral motifs in multi-colored brown and black, or single-colored brown, on a glaze coating referred to as Slip glaze or 'Gelabe-ie'. One specimen, with a Slip or Gelabe-ie glaze coating (Fig. 10, sample Shd015), featured inscriptions or inscription-like writing on the glazed surface, which had become unreadable due to degradation, resembling findings from Neyshabur excavations from the 3rd and 4th centuries AH (Wilkinson 1961: 102-115).

Samples adorned with Gelabe-ie glaze (motifs on a slip surface and covered by a transparent lead glaze) exhibit similarities to the potsherds unearthed from historical sites such as old (Choubak 2012: 105, plate 27),

Table 3: Location of the early Islamic sites in the western margins of the Lut Desert (Authors, 2011). ▼

No	Site	Code	Location	East Longitude	North Latitude	Altitude
1	Hojjatabad	Shd 015	Shahdad, Takab, Hojjatabad Village	3375651m N	40R0574475m E	347
2	Shahr-E Mohreiye Rudkhane	Shd 025	Shahdad, Takab, Rudkhaneh Village	3355666m N	40R0566977m E	330
3	Dehno Village Site	Shd 028	Shahdad, Takab, Dehno Village	3377292 m N	40R0572293m E	350
4	Shahr-E Islami Shahdad	Shd 045	Shahdad, Central District	3372829m N	40R0564036m E	443
5	Qal'eh Ramuk	Shd 044	Shahdad, Central District	3377993m N	40R0560676m E	480
6	Kushk-E Ramouk	Shd 065	Shahdad, Central District	3369118m N	40R0567120m E	422
7	Qal'eh Choqouki	Shd 066	Shahdad, Central District	3364054m N	40R0569074m E	434
8	Dastjerd Qal'eh	Shd 067	Shahdad, Central District	3363824m N	40R0569790m E	420
9	Qal'eh Kohne	Shd 075	Shahdad, Central District	3366084m N	40R0569038m E	416
10	Qal'eh Kotkotu	Shd 033	Shahdad, Anduhjerd, Gowdiz Village	3355661m N	40R0566977m E	770
11	Qal'eh Nask	Gbf 008	Golbaf, Keshit, Nask Village	3301753 m N	40R0591356m E	909

Qal'eh Ardeshir, Kerman (Tahmasbizadeh et al a., 2022: 368, plate 11), Narmashir Plain, Kerman (Amirhajloo & Saqai 2019: 215), and the old city of Esfarayen (Zarei et al., 2016: 70, plates 9 & 10). The likelihood of an economic exchange during the early Islamic centuries can be attributed to the trade route linking Narmashir and the southern part of Shahdad, along with the shared pottery tradition observed in both regions. Additionally, the pottery samples show resemblance to pottery from Baluchestan (southern Makran) (Mousavi Haji et al., 2013: 130, plates 9 & 10), Siraf (Mason & Keall, 1991, Fig. 3: 536, P 60), and Ras al-Khaimah in Mesopotamia (Kennet 2009, Fig. 37, k434, p. 161, Fig. 39, k6129, P16).

- Middle Islamic Centuries

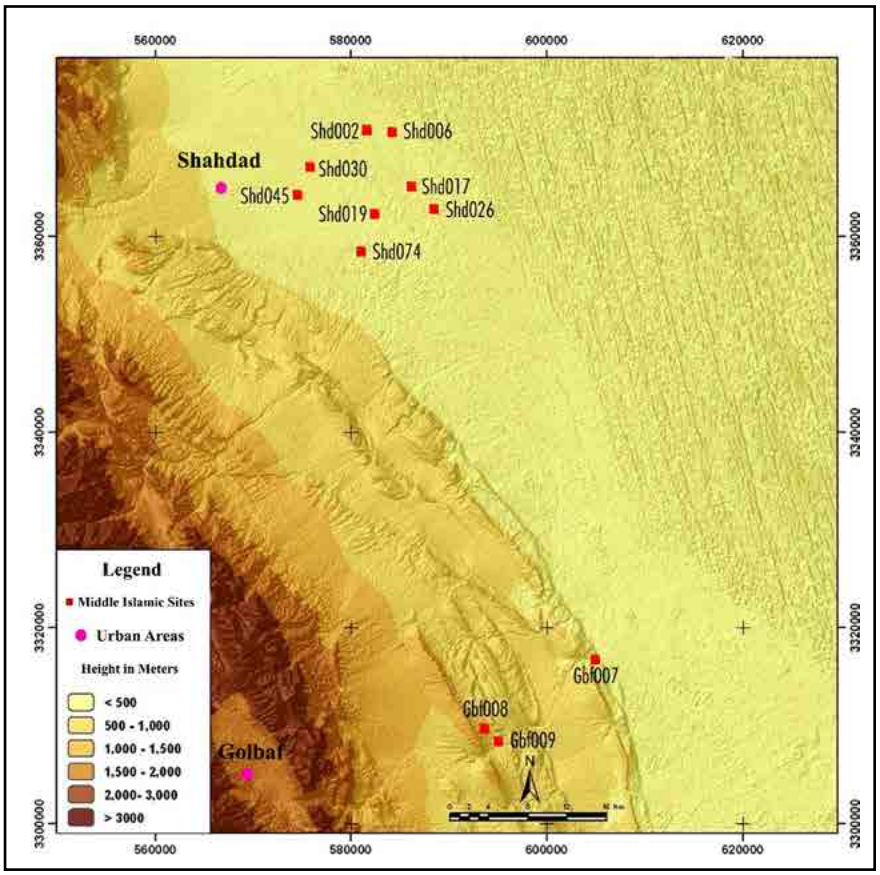
There are 15 middle Islamic sites in the western part of Lut, with 7 from the Seljuk period, 5 belonging to the Ilkhanid, and 3 to the Timurid period (Fig. 11 and Table 4). The recovered potteries include unglazed ware made with molded techniques and incised motifs. These wheel-made Seljuk potteries generally have buff-colored fabric with sand temper and decorated with

Fig. 10: Potsherds belonging to the early Islamic centuries as recovered from the survey (Authors, 2011). ▶

geometric and floral motifs. These samples are comparable to the molded ware of the 5th and 6th centuries AH from Jiroft (Choubak 2012: 103-104, plates 23 & 24), Qal'eh Sang, Sirjan (Amirhajloo & Sedighian 2020: 163, plate 5), Narmashir, Kerman (Amirhajloo & Saqai 2019: 213), and Dasht-e Gazak Rayen Kerman (Heidari Babakamal 2018).

Another important Seljuk type pottery is 'splashed glaze' ware with polychrome glaze, generally created with black, brown, and green colors sprinkled on a cream-colored background. These samples can be compared with splashed-glaze wares from Narmashir (Amirahajlo & Saqai 2017: 215), Dasht-e Gazak Rayen (Heidari Babakamal 2018), and samples from Neyshabur (Wilkinson 1963: Figs. 33 & 37) (Fig. 13). Among other types is turquoise black underglaze painted ware (Firouzeh Qalam Meshki) which is related to this period. They are typically wheel-made sand- and grit-tempered with buff

fabric. The painted decoration usually features geometric and floral motifs in black on a blue or white background. These pieces can be compared with the samples from Narmashir (Amirhajloo & Saqai 2017: 216), Qal'eh Sange, Sirjan (Amirhajloo & Sedghian 2019: 170, plate 7), Qal'eh Dokhtar, Kerman (Tahmasbizadeh b et al., 2022: 307, plate 7), Tous (Haddon 2011: 104), and Jahan Nama Palace, Isfahan (Shojaei 2018: 130, plate 6, No. 13-16). The Timurid samples are wheel-made, with buff and lateritious fabric, sand to grit temper, and decorated with black or turquoise blue motifs on a white glazed background (Fig. 12). According to the distribution map of the sites (Fig. 11), Shahdad had been more prosperous in the early Islamic centuries and the Sasanian period compared to the medieval centuries, and the distribution of sites confirms it. The environmental conditions and human factors have almost equally influenced the distribution of sites, so that a similar trend in the life and growth of settlements can be observed from the Sasanian period to the end of the middle Islamic Centuries.



◄ **Fig. 11: The distribution of middle Islamic sites in Shahdad (Authors 2022).**

The architectural structures from the Seljuk and Ilkhanid periods, such as mausoleums3 , indicate the importance of these types of monuments in the social background of the society over time. Two octagonal monuments, dated to the Seljuk and Ilkhanid periods and named 'Keshit' and 'Nask'—referred to as "Hashtdar or eight doors" among local residents- are among such evidence in the studied area (Zarei et al., 2014: 132-12) (Figs. 13 & 14).

- The Late Islamic Centuries

There are 46 sites with evidence from the late Islamic periods in the western margins of the Lut Desert (Fig. 15 and Table 5). Examples of blue and white pottery from the Safavid period have been discovered in 16 sites. The blue and white pottery features a white background adorned with geometric and floral motifs (similar to Chinese examples in some cases). These pieces are wheel-made with sand and grit temper. They bear resemblance to pottery findings from various locations such as Narmashir (Amirhajloo & Saqai, 2019, 216), Qal'eh Sang, Sirjan (Amirhajloo & Sedghian, 2020: 170, Plate 7), Ardabil (Pope 1981: 118), Kerman (Fehervari & Garner, 2000: 140), and Sar Qal'eh, Tehran (Nemati et al., 2020: 90, Plate 4) (Fig. 16). The

Table 4: The location of medieval Islamic sites in the western margins of the Lut (Authors, 2011). ▼

No	Site	Code	Location	East Longitude	North Latitude	Altitude
1	Posht-e Gozargah-e Abolfazl Site (Seljuk)	Shd 026	Shahdad, Takab, Rudkhaneh Village	3369087m N	40R0580168m E	312
2	Shahr-e Islami Shahdad (Seljuk)	Shd 045	Shahdad, Central District	3372829m N	40R0564036m E	443
3	Qal'eh Nask (Seljuk)	Gbf008	Golbaf, Keshit, Nask Village	3301753m N	40R0591356m E	330
4	Hashtdar Nask (Seljuk)	Gbf009	Golbaf, Keshit, Nask Village	3301406m N	40R0591404m E	930
5	Hematabad-e Paeen II (Seljuk-Ilkhanate)	Shd 019	Shahdad, Takab, Hematabad-E Paeen Village	3371976m N	40R0574053m E	356
6	Hasanabad Site (Seljuk-Ilkhanate)	Shd 030	Shahdad, Takab, Hasanabad Village	3379002m N	40R0566914m E	379
7	Dehseif Site (Seljuk-Ilkhanate)	Shd 002	Shahdad, Takab, West Of Dehseif Village	3387131m N	40R0568171m E	357
8	Pir Baba Mosafer Mausoleum (Aqous Building) (Ilkhanate)	Shd 074	Shahdad, Central District	3365863m N	40R0569377m E	416
9	Hashtdar-e Keshit (Ilkhanate?)	Gbf007	Golbaf, Keshit, Keshit Village	3302680m N	40R0609555m E	451
10	Shahr-e Mohreiye Dehseif (Timurid)	Shd 006	Shahdad, Takab, Dehseif	3387474m N	40R0570092m E	359
11	Akbarabad-E Bahri Site (Timurid)	Shd 017	Shahdad, Takab, Akbarabad-E Bahri	3373983m N	40R0579205m E	304

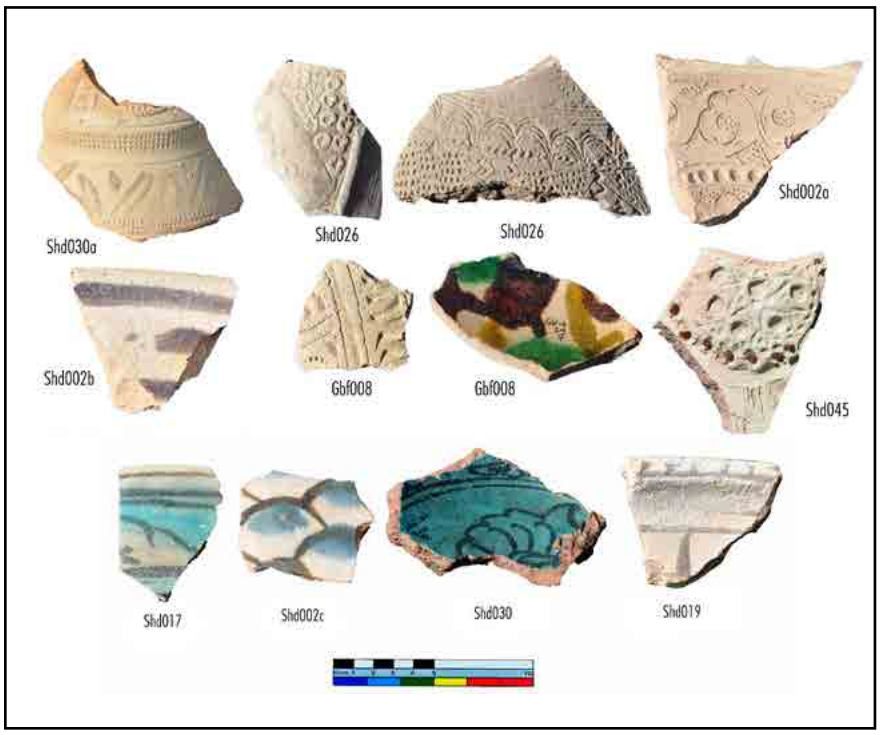
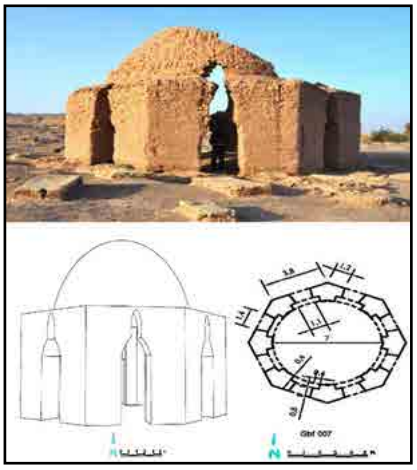


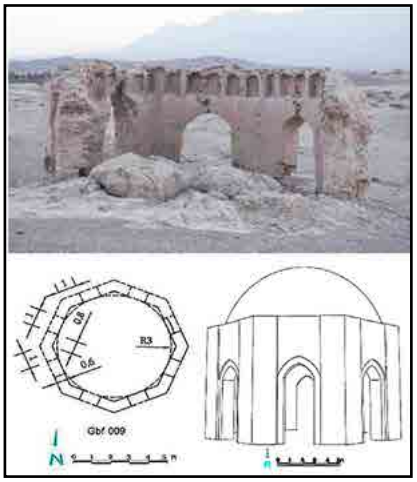
Fig. 12: The distinguished pottery samples dated to the Seljuk (Shd002a, Shd026, Shd030a, Shd045, Gbf008), Ilkhanid (Shd002b, Shd019, Shd030) and Timurid periods (Shd002c, Shd017) (Authors, 2011). ▶

analysis of the distribution pattern of settlements during the late Islamic centuries (Fig. 15) reveals the clear evidence of relative prosperity and the re-establishment of sites. The majority of these settlements took the form of forts, which also functioned as caravanserais. The refurbishment and multi-functional use of these structures during the Qajar period facilitated the passage of trade caravans from this area to Bam and Narmashir, as well as to the eastern areas in the north of Shahdad. Since the recent centuries have not witnessed the same level of prosperity and activity, the downward trend in Shahdad is expected to persist.

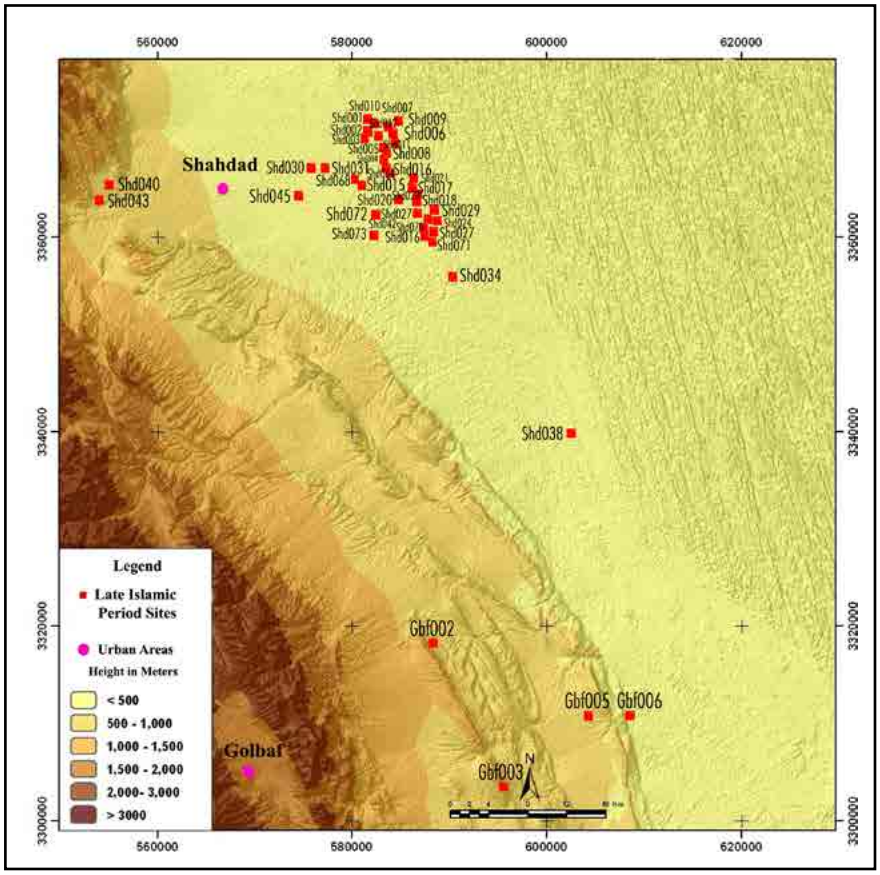
There are a total of 30 Islamic sites, with the majority of them, specifically 17, being forts. The prevalence of forts indicates the emphasis on enhancing communication and security for caravans in the later Islamic eras, particularly in the Qajar period. Shahdad and the surrounding areas of the Lut, which served as a trade route from Kerman to Khorasan, faced various security challenges during this period, prompting the construction of forts and defensive structures. The spatial distribution of these forts along the trade route further supports this assertion, with some of these structures still intact while others have been lost to time. Some areas are marked by the presence of ruined forts, which are the last remnants of the previous



▲ **Fig. 13: Top: The current situation of 'Hashtdar', Keshit. Down: Plan and the current restored profile of the building (Authors, 2011).**



▲ **Fig. 14: Top: The current situation of 'Hashtdar', Nask. Down: Plan and the current restored profile of the building (Authors, 2011).**



◄ **Fig. 15: The distribution of late Islamic period sites in the western margins of the Lut (Auhtors, 2022).**

Fig. 16: Blue and white pottery samples from the Safavid sites (Authors, 2011). ▶

Table 5: Location of late Islamic period sites in the western margin of Lut (Authors, 2011). ▼

No	Site	Code	Location	East Longitude	North Latitude	Altitude
1	Dehseif Site (Safavid)	Shd 002	Shahdad, Takab, west of Dehseif village	3387131m N	40R0568171m E	357
2	Shahr-e Mohreie, Dehseif (Safavid)	Shd 006	Shahdad, Takab, Dehseif village	3387474m N	40R0570092m E	359
3	Mahdiabad site (Safavid)	Shd 008	Shadad, Takab, Mahdiabad	3387735m N	40R0567179m E	387
4	Hojjadabad Site (Safavid)	Shd 015	Shahdad, Takab, Hojjatabad village	3375651m N	40R0574475m E	347
5	Safavid Structure of Shahre-e Mohreie	Shd 016	Shahdad, Takab, Hojjatabad village	3366315m N	40R0580884m E	328
6	Hematabad-e Paeen I (Safavi)	Shd 018	Shahdad, Takab, Hematabad-e Paeen I	3374160m N	40R0574620m E	350
7	Rashidabad site (Safavid)	Shd 020	Shahdad, Takab, Rashidabad village	3371265m N	40R0579348m E	305
8	Posht-e Gozargah-e Abolfazl (Safavid)	Shd 026	Shahdad, Takab, Rudkhaneh	3369087m N	40R0580168m E	312
9	(Shahr-e Mohreie Dehghazi (Safavid)	Shd 027	Shahdad, Takab, Rudkhaneh	3368509m N	40R0585520m E	291

10	Hasanabad site (Safavid)	Shd 030	Shahdad, Takab, abandoned village of Hasanabad	3379002m N	40R0566914m E	379
11	Shd 031 (Safavid) S	Shd 031	Shahdad, Takab, Dehno	3376910m N	40R0568208m E	363
12	Shahr-e Eslami Shahdad (Safavid)	Shd 045	Shahdad, Central District	3372829m N	40R0564036m E	443
13	Carvansaraye Sangi Kashitouiye (Safavid)	Shd 043	Shahdad, Sirch, Bagh-e Houtak	3364012m N	40R0544512m E	1284
14	Kalaghun Cemetery (Safavid)	Gbf 002	Golbaf, Central District	3305704 m N	40R0572204m E	1719
15	Qal'eh Golbaf (Qal'eh Khandaq) (Safavid-Qajar)	Gbf 001	Golbaf, Central District	3305424 m N	40R0572136m E	1701
16	Qal'eh Sangi Hormak (Safavid-Qajar)	Gbf 003	Golbaf, Central District	3279439 m N	40R0588243m E	1313
17	Qal'eh Dehseif (Qajar)	Shd 001	Shahdad, Takab, Dehseif Village	3380399 m N	40R0574188m E	454
18	Qal'eh Shafiabad-e Paeen (Qajar)	Shd 005	Shahdad, Takab, Shafiabad Village	3386491 m N	40R0566855m E	382
19	Qal'eh Borj Mahdiabad	Shd 007	Shahdad, Takab, Mahdiabad village	3385082 m N	40R0570311m E	385
20	Ziyaratagah Qal'eh (Qajar)	Shd 009	Shahdad, Takab, North of Ziyaratagah village	3386966 m N	40R0568004m E	362
21	Qal'eh Hosseinabad (Qajar)	Shd 010	Shahdad, Takab, Hosseinabad village	3386966 m N	40R0568004m E	362
22	Qal'eh Houshangabad (Qajar)	Shd 013	Shahdad, Takab, Malekabad village	3384955 m N	40R0570794m E	359
23	Northern Shoja-abad Qal'eh (Qajar)	Shd 012	Shahdad, Takab, Northern Shoja-abad village	3381711 m N	40R0572887m E	338
24	Qal'eh Rashidabad (Qajar)	Shd 021	Shahdad, Takab, Rashidabad Village	3370658 m N	40R0577197m E	329
25	Qal'eh Rudkhaneh (Qajar)	Shd 023	Shahdad, Takab, Rudkhaneh village	3368695 m N	40R0580595m E	317
26	Qal'eh Mohammadabad-e Rudkhaneh	Shd 024	Shahdad, Takab, Rudkhaneh village	3369193 m N	40R0579435m E	324
27	Qal'eh Hasanabad (Qajar)	Shd 029	Shahdad, Takab, Hasanabad village	3380491 m N	40R0566571m E	385
28	Qal'eh Gowdiz (Qajar)	Shd 034	Shahdad, Anduhjerd, Gowdiz village	3349044 m N	40R0568997m E	785
29	Qal'eh Rudkhaneh Pashouiye (Qajar)	Shd 038	Shahdad, Anduhjerd, Pashouiye	3330763 m N	40R0594095m E	572
30	Qal'eh Feizabad-e Chaharfarsakh (Qajar)	Shd 040	Shahdad, Sirch, Feizabad Village	3367792 m N	40R0545405m E	1600
31	Shafiabad Caravanserai (Qajar)	Shd 004	Shahdad, Takab, Shafiabad village	3387314 m N	40R0567717m E	370
32	Malekabad Caravanserai I (Qajar)	Shd 011	Shahdad, Takab, North of Malekabad	3388309 m N	40R0569958m E	365
33	Malekabad Caravanserai I (Qajar)	Shd 012	Shahdad, Takab, North of Malekabad	3385270 m N	40R0571419m E	355
34	Shahdad Bazar (Qajar)	Shd 068	Shahdad, Central District	3365369 m N	40R0568133m E	439
35	Pir-e Saba Mausoleum (Qajar)	Shd 003	Shahdad, Takab, North of Dehseif village	3388382 m N	40R0565104m E	407
36	Imamzadeh-Zeyd Complex (Qajar)	Shd 064	Shahdad, Central District	3366013 m N	40R0568417m E	422

37	Bagh-e Houtak Bath of Chaharfarsakh (Qajar)	Shd 042	Shahdad, Takab, North of Houtak	3369513 m N	40R0545985m E	1900
38	Haj Amin cistern (Qajar)	Shd 070	Shahdad, Central District	3365494 m N	40R0568193m E	435
39	Haj Mohammad Taghi Cistern (Qajar)	Shd 071	Shahdad, Central District	3365033 m N	40R0567689m E	456
40	Sadeqi House (Qajar)	Shd 069	Shahdad, Central District	3365301 m N	40R0568129m E	441
41	Twin Water Mill	Shd 073	Shahdad, Central District	3361313m N	40R0566182m E	492
42	Shahdad Qadir Bath (Qajar)	Shd 072	Shahdad, Central District	3364064m N	40R0567369m E	465
43	Qale Keshit (Qajar)	Gbf005	Golbaf, Keshit, Keshit Village	3302967m N	40R0609686m E	441
44	Keshit Village (Qajar)	Gbf006	Golbaf, Keshit, Keshit Village	3302951m N	40R0609604m E	445

life. The defensive walls of certain forts in the region have been destroyed, leading to their demolition as the residential locations gradually covered by drifting sands. As a result, most settlements are concealed, with only the main forts or structures of greater heights remaining visible. Notable examples include Ghal'eh Shahr-e Shahdad, Qal'eh Keshit Golbaf, and Qal'eh Dehseif in Takab (Fig. 17). Nevertheless, the fortresses located in the western Lut Desert, along with the few remaining buildings in such conditions, have now become a safe haven for bandits. These people have made modifications to the buildings in order to protect themselves from both internal and external threats. Furthermore, environmental factors have also contributed to the deterioration of these structures. Out of the 13 other identified buildings, three caravanserais (which also functioned fortresses), two reservoirs, two baths, a marketplace, a historical village complex, a historical residence, a pair of water mills, and two tombs indicate a certain level of prosperity in Shahdad during the Qajar era. The fact that most of these buildings were still in use during the Pahlavi period suggests that similar circumstances persisted in Shahdad throughout the past century.

Discussion

Providing an opinion on the formation, distribution, growth, development, and decline of the areas under study is a challenging task due to various obstacles. Nonetheless, it is plausible to suggest certain hypotheses. The region is confronted with significant challenges such as the constant threat of shifting sands, severe wind erosion, and the vast expanse and notable insecurity of the area, all of which make conducting a thorough analysis difficult. An important consideration is that further archaeological exploration in the documented Islamic sites is largely unattainable due to the

▲ Fig. 17: Examples of documented forts in the archaeological survey. Top: Qal'eh Dehseif. Down. Qal'eh Keshit (Authors, 2011).

current environmental conditions. Furthermore, the region lacks substantial superimposition of in-situ cultural strata that could offer valuable insights for stratigraphy and dating purposes. Numerous archaeological sites have been affected by wind erosion, resulting in a decrease in their original height. The only remnants left behind are scattered potsherds, serving as the sole evidence of past human activities. Through the analysis of pottery fragments, a total of 72 sites with historical and Islamic significance have been identified. Out of these, 14 sites date back to historical periods, with 3 belonging to the Parthian era and 11 to the Sasanian era. The remaining 59 sites are attributed to the Islamic period, further categorized into various sub-periods. Specifically, there are 11 sites from the early Islamic centuries, 7 from the Seljuk period, 5 from the Ilkhanid period, 3 from the Timurid period, 16 from the Safavid period, and 30 from the Qajar period (Chart 1). These cultural discoveries are spread across the Takab region to Keshit and Pashitouiye, extending 80 km south of Shahdad. The graphical representation of these sites indicates a continuous growth and prosperity from the Sasanian era to the middle Islamic centuries.

Historical and archaeological evidence, along with the accounts of geographers and travelers, highlight the significance of the trade networks in Shahdad. In fact, the silence of sources regarding Shahdad during and after the Ilkhanid period is noticeable, indicating a lack of vitality in life

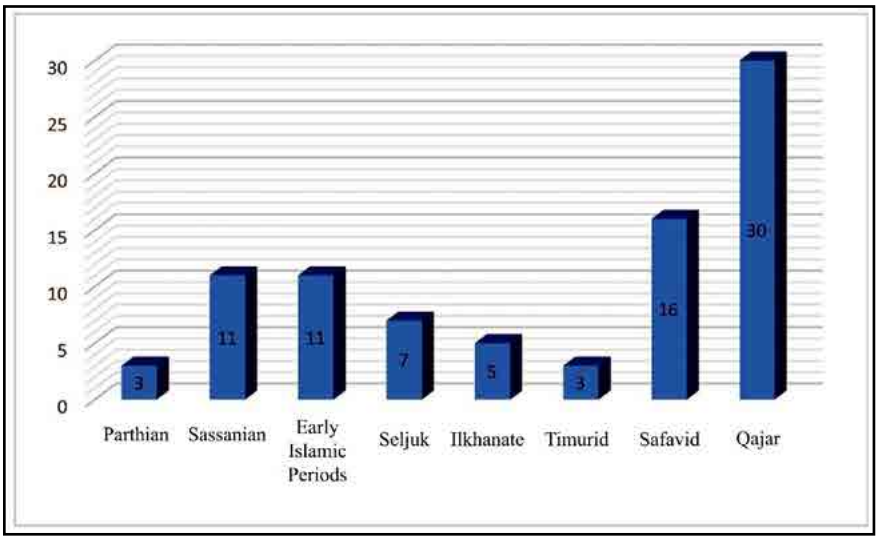
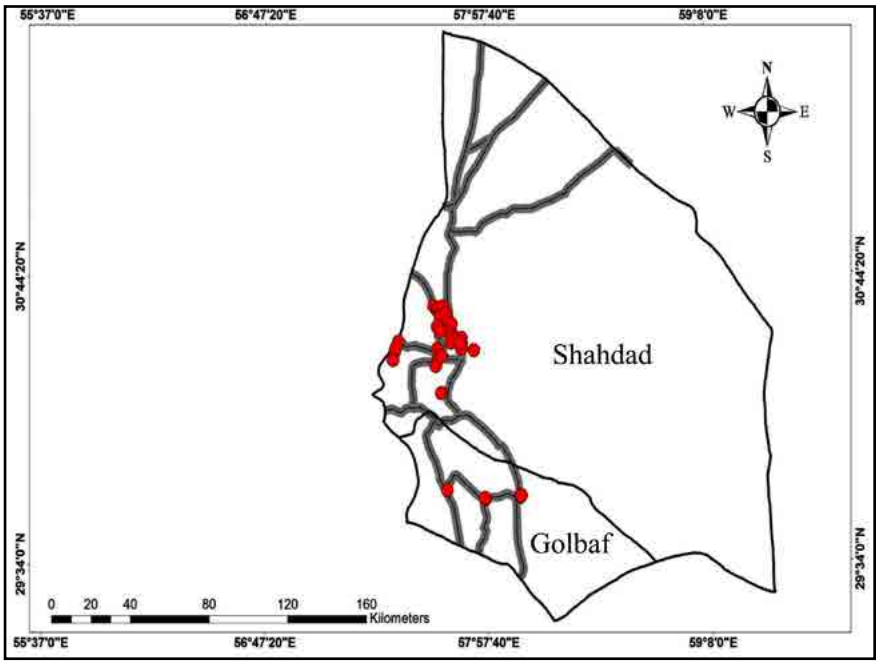
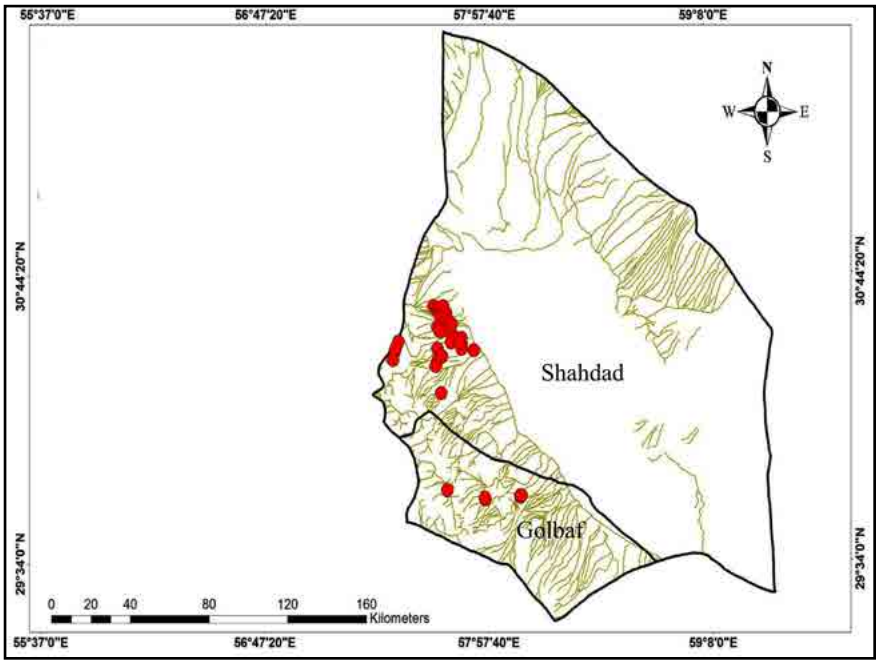


Chart 1: The frequency of historical and Islamic sites in the western margin of the Lut Desert (Authors, 2020) ◄

during the 8th and 9th centuries AH, which aligns with the results obtained from the field surveys. While the area experienced a decline after the Ilkhanid period with fewer settlements during the Timurid era, it saw a resurgence during the Safavid period. This revival was attributed to the Safavid rulers' focus on developing trade routes and ensuring caravan security, continuing through the Qajar period. These mentioned routes connected the south-eastern areas of Iran to the eastern and northern areas of Kerman. The region's connection to trade routes is evident through the numerous forts and caravanserais identified along these paths. The Qajar rulers concentrated on fortifying the western margins of the Lut Desert, emphasizing security and trade in the area. The map displaying these sites and their alignment with road maps effectively illustrates the strategic positioning of Islamic sites along trade routes (Fig. 18). An additional complex aspect highlighted in the examination of the western fringes of the Lut Desert is the method by which water provision is managed. The region of Shahdad and the western margins of the Lut Desert in Kerman province receive the lowest annual precipitation in the area, with approximately 30 to 46 millimeters and an average yearly temperature of 27.5 °C (Kerman Meteorological Organization, 2020). Ensuring water supply to this region has been crucial, despite the fact that historical climate conditions were more favorable compared to the present. Apart from utilizing qanats, the local population's water requirements are met through both permanent and seasonal rivers originating from the highlands to the west. The Shahdad alluvial fan acts as the primary water collection point in the area, fed by four springs at its highest point and flowing eastward across the plain. The abundant water supply and fertile soil in this area have facilitated the growth of Islamic and historical settlements (Fig. 19).



◄ **Fig. 18: The alignment of historical and Islamic period sites with the trade routes of Shahdad and Golbaf (Authors, 2020).**



◄ **Fig. 19: Historical and Islamic sites in Shahdad alluvial fan in relation to the water's braided channels (Authors, 2020).**

The combination of water availability and Shahdad's strategic location fueled the city's growth and prosperity from prehistory to the late Islamic centuries. Despite the region's reliance on water for sustenance, Shahdad and its neighboring villages face recurrent challenges from devastating floods. Sudden rainfall transforms numerous streams into destructive floods, leading to the repeated relocation of settlements over the centuries. This cycle of destruction and rebuilding highlights the ongoing struggle of Shahdad and its inhabitants against the forces of nature. While historical

texts do not address this matter, rounded boulders weighing from kilograms to tons in the region where streams descend from the Sirch and Jaftan mountains, approximately 1 km west of present-day Shahdad, suggests the risks associated with intense yearly rainfall and the occurrence of massive floods in the alluvial fan leading to Shahdad and its surrounding villages on the eastern side of the streams. The establishment and lack of prosperity in Shahdad and Golbaf are also influenced by sandstorms and the movement of drifting sands, causing destruction to settlements and rural residents' sources of income (e.g., their agricultural activities). This destruction often leads to the abandonment and migration of residents to more suitable areas, resulting in the disappearance of settlements over time. Only the remnants of sand-covered houses remain as evidence of these once-thriving communities (Fig. 20).

▲ Fig. 20: Abandonment and disappearance of settlements in the Lut Desert as a result of flowing sands (Authors, 2011).

Analyzing the spatial distribution of settlements in historical periods poses challenges due to the absence of a clear pattern in their establishment and the overall lack of settlements. This limits the ability to conduct a thorough analysis of their distribution. With the arrival of Islam in the region, although it is challenging to understand the growth and development of settlements, most settlements in Shahdad have been shaped near or connected to pre-Islamic settlements, particularly Sasanian heritage. Historical sources describe the continuity of life in the early Islamic centuries. However, during the middle centuries and from the Ilkhanid to the Safavid period, settlements experienced a decline due to

a lack of necessary conditions for growth and development. The Safavids and Qajars worked to control and secure trade routes and caravans, leading to relative prosperity in the late Islamic centuries. Along with all the mentioned political factors, the role of the Shahdad alluvial fan and access to water sources in different periods (located in the headwaters of Derakhtangan and the highlands of Sirch and Joftan) played a significant role in the establishment of settlements over time.

Conclusion

The archaeological research carried out in the Lut Desert demonstrates a change in the focal points of civilization, suggesting the emergence of fresh settlements as one moves from the Takab plain towards the western boundary of the desert, with the settlements becoming increasingly recent. Despite facing difficulties such as scarce water and vegetation, the early inhabitants of the Takab plain were compelled to migrate towards the desert's periphery where natural resources were more abundant. Indeed, the examination of prehistoric sites in conjunction with historical and Islamic records corroborates this finding. Due to the water supply in the Takab Plain being sourced from the western mountains, along with intermittent flooding of the riverbed and the encroachment of the desert to the west, the inhabitants of the plain were compelled to relocate towards the west. This situation led to the development of a unique settlement pattern characterized by a lack of hierarchy across different cultural periods, which subsequently influenced the distribution of settlements on the plain. For example, in Shahdad, newer sites have shifted approximately 7 kilometers from the locations where prehistoric people originally settled. This shift has connected these sites to communication routes leading to forts and caravanserais in the western margins over the past few centuries, leaving faint traces of past life in some settlements. Few Parthian sites in Shahdad have been identified through this study, with a notable increase in prosperity from the Sasanian period onwards. Despite facing natural challenges, settlements continued to exist until the Ilkhanid period. The relocation of the current Khabis settlement marked the final move endured by the region's inhabitants towards the end of the Ilkhanid period. The destruction of Shahdad settlements across various historical eras can be attributed to a combination of natural factors and human-induced threats, including strong winds, drifting sands, floods, extreme temperatures, and the lack of secure transportation routes. Furthermore, it was highlighted that the Shahdad alluvial fan, situated at the western boundary of the Lut Desert, along with the region's historical significance in terms of communication,

played crucial roles in shaping the growth and development of settlements in the area.

Endnote

1. Considering that some are multi-period, the overall number is more than the identified sites.
2. Dehkhoda (1998: 1282) stated: Located in the eastern region of Kerman, Khabis is surrounded by the Lut Desert to the north and east, while Narmashir and Bam lie to the south. The prevailing weather in this area is warm, and it has been renamed Shahdad.
3. Memorial monuments to house the deceased.

Acknowledgements

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Observation Contribution

Conceptualisation,methodology, investigation, writing original draft, writing review and editing,:Yadollah Heidari babakamal Funding acquisition, investigation, project administration, supervision: Nasir Eskandari.

Conflict of Interest

The authors declare that there are no conflict of interest.

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بررسی الگوی استقراری محوطه‌های دوران تاریخی و اسلامی حاشیهٔ غربی بیابان لوت

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چکیده

حاشیهٔ غربی بیابان لوت، به‌لحاظ موقعیت جغرافیایی ویژه‌اش، از دیرباز نقش مهمی در تبادلات فرهنگی جوامع داشته است. وجود شهر شهداد -متعلق به هزارهٔ سوم پیش‌ازمیلاد- در این منطقه، بر اهمیت دشت لوت در مطالعات باستان‌شناسی جنوب‌شرق ایران گواهی می‌دهد؛ بدین‌سبب بود که در سال ۱۳۹۰هـ.ش. بررسی هدفمند باستان‌شناختی با هدف تعیین الگوی استقراری محوطه‌های دوران تاریخی و اسلامی در حاشیهٔ غربی دشت لوت آغاز گردید. دستاورد این بررسی، شناسایی ۹۴ اثر باستانی توسط نگارندگان مشتمل‌بر تپه‌ها، بناها، گورستان‌ها، دستکندها و نگارکندها از هزارهٔ پنجم پیش‌ازمیلاد تا دورهٔ متأخر اسلامی بود. هدف اصلی پژوهش میدانی، بدان‌دلیل بود تا الگوی استقراری محوطه‌های دوران تاریخی و اسلامی حاشیهٔ غربی دشت لوت را معیّن و نقش عوامل زیست‌محیطی و انسانی را در پراکنش محوطه‌ها بازیابی کند؛ در این‌راستا، پرسش اساسی پژوهش عبارت است از: توزیع مکانی و زمانی محوطه‌های باستانی در ادوار تاریخی و اسلامی در این منطقه از کشور چگونه بوده و از چه مؤلفه‌ها و عواملی تأثیر پذیرفته است؟ پس از اتمام بررسی روشمند منطقه مشخص گردید که مجموعاً ۷۲ اثر به ادوار تاریخی و اسلامی و بقیه به دوران پیش‌ازتاریخ تعلق داشتند. هم‌چنین، ضمن معرفی استقرارهای دوران تاریخی و اسلامی حاشیهٔ غربی دشت لوت، الگوی پراکنش آن‌ها در پهنهٔ فرهنگی بیابانی این‌دشت تحلیل شده است. نتایج پژوهش نشان می‌دهد که وجود مخروط‌افکنهٔ شهداد، شکل طولی حاشیهٔ غربی کویر لوت -شمال به شمال‌شرقی- و استمرار نقش ارتباطی منطقه از دوران تاریخی تا قرون متأخر اسلامی بر رشد و توسعهٔ سکونتگاه‌ها و الگوی استقراری زیستگاه‌ها تأثیر به‌سزایی داشته است. به‌نظر می‌رسد هم‌سو با استقرارهای پیش‌ازتاریخ حاشیهٔ غربی کویر لوت، رونق زندگی در ادوار تاریخی و اسلامی نیز برروی مخروط‌افکنهٔ شهداد تداوم داشته است؛ اگرچه این تداوم در دوره‌های موردمطالعه به یک‌میزان و کیفیت نبوده است.

کلیدواژگان: حاشیهٔ غربی بیابان لوت، دوران تاریخی، دوران اسلامی، محوطه‌های باستانی، بررسی باستان شناختی.

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